

As the water in the well evaporates at the surface, the density of the left over water increases because of the solvents in it. The denser water descends to the bottom and passes out of the well into the outer reservoir through the bottom holes and as the fresh water from outside of the reservoir enters the well through the upper holes.

Thus, to obtain desalinated water by this plant, the water in a reservoir is heated by direct sun rays falling on the water through the transparent chambers, by the solar dish arrangement and the shell reflector. Moreover, no external energy is utilized in operating any device embedded in the plant.

Having illustrated and described the principles of the invention in embodiment, it will be apparent that the equipment of the present invention may be employed in many different shapes, sizes and configurations without departing from such principles described herein. In view thereof, it should be understood that the particular embodiments of the invention shown in the drawings and described above are intended to be illustrative only and are not intended to limit the scope of the invention.

CLAIMS

What is claimed is:

1. A solar desalination plant, for producing distilled water out of saline or impure Water by heating the water with solar energy, comprising of:
 - (a) a transparent double chamber embodiment of which, one is a main chamber designed in bell shape and the other is an auxiliary chamber in oval shape and the main chamber being surmounted by the auxiliary chamber, and
 - (b) the main chamber, that is the evaporating chamber being mounted on a foundation wall in the form of a well enclosing water in a reservoir, and
 - (c) the main chamber containing black tubes having vanes known as the heat exchange tubes and the tubes being partially immersed parallel to the surface of the water contained in the well of the chamber, and

- (d) the auxiliary chamber being connected at its bottom to a cistern outside the chamber and the cistern being connected to a water collecting tank through a siphon pipe.
- 2. The solar desalination plant according to the claim 1, in which water is heated by solar energy, the said plant being provided with a solar dish heating system consisting of:
 - (a) a silver white concave dish containing a set of black tubes filled with a volatile liquid coolant and the heating tubes being incorporated with a mechanism of automatic coolant circulating system and these tubes being connected to the heat exchange tubes in the well of the main chamber, and
 - (b) the said automatic coolant circulating system with its mechanism of a spring diaphragm, expansion cell and the means of connections and components, to circulate the heated liquid coolant automatically through the said heat exchange tubes and the heating tubes.
- 3. The solar desalination plant according to the claim 1, comprising of the said embodiment and the main chamber being surrounded by an open vertical cylindrical shell reflector to direct the sunrays by reflection to fall on the said heat exchange tubes in the main chamber.
